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A taxonomic revision of the Australian genus *Setodyschirius* with description of six new species (Coleoptera: Carabidae: Scaritinae)

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Abstract. A revision of the genus *Setodyschirius* Fedorenko, 1996 from Australia is provided. Thirteen species are recognized, including six species described as new: *S. pseudozonatus* sp. nov. from Northern Territory, Western Australia and Queensland, *S. storeyi* sp. nov. from Western Australia and Northern Territory, *S. jabiru* sp. nov. from Northern Territory, *S. monteithianus* sp. nov. from Queensland and Northern Territory, *S. weiri* sp. nov. from Northern Territory, Queensland, New South Wales and Western Australia, and *S. kangaroo* sp. nov. from South Australia. Types and additional specimens were examined for all seven species known to date, lectotypes are designated for *S. stephensii* (MacLeay, 1865) and *S. macleayi* (Sloane, 1896). All species are redescribed, illustrated and compared to related taxa and the known distribution is summarized. A key to the species of *Setodyschirius* is provided.

Key words. Coleoptera, Carabidae, Scaritinae, *Setodyschirius*, taxonomy, new species, Australia, Australian Region

Introduction

Setodyschirius Fedorenko, 1996 is a recently established genus of the tribe Dyschiriini of the carabid subfamily Scaritinae. According to Fedorenko (1996) and Lorenz (2005), this genus contains seven species endemic to Australia, originally described within the genus *Dyschirius* Bonelli, 1810 (most described with only a very short description) by MacLeay (1865, 1866), Putzeys (1868), Blackburn (1890, 1891) and Sloane (1896, 1923). Fedorenko (1996) raised the Australian species of *Dyschirius* to a new genus but he did not provide their redescriptions. The only available identification key published by Sloane (1923) is incomplete because the author did not examin three of the seven species within the key.

Material and methods

The types of six of the seven currently known species, as well as several hundred non-type specimens of the seven known species were examined. Six new species were also identified within the material examined.

The specimens were dry-mounted and studied, including measurements and examination of the microsculpture, at a magnification of 56×. Up to 32 specimens of each species were measured. Standard measurements follow Fedorenko (1996). Length of body is given with 0.05 mm accuracy; other measurements including ratios and means are down to two decimal places. Label locality data of all specimens are quoted verbatim except standardized dates. Male genitalia (aedeagi) were embedded in Canada balsam (male holotypes) or fixed with water-soluble glue.

The following abbreviations are used to indicate the depository of specimens:

ANIC Australian National Insect Collection, Canberra, Australia;
BMHN Natural History Museum, London, U.K.;
CNMC Canadian Museum of Nature, Ottawa, Canada;
FMNH Field Museum of Natural History, Chicago, U.S.A.;
HNHM Hungarian National History Museum, Budapest, Hungary;
LTVI Luca Toledano collection, Verona, Italy;
MBMG Martin Baehr collection, Munich, Germany;
MCSN Museum Civico di Storia Naturale, Genoa, Italy;
MMSA MacLeay Museum, Sydney, Australia;
MNTD Museum and Art Gallery of the Northern Territory, Darwin, Australia;
NMPC National Museum, Praha, Czech Republic;
PBPC Petr Bulirsch collection, Praha, Czech Republic;
PMGI Pier Mauro Giachino collection, Torino, Italy;
QDPI Queensland Department of Primary Industries, Mareeba, Australia;
QMBA Queensland Museum, Brisbane; Australia;
SAMA South Australian Museum, Adelaide, Australia;
SJPC Stanislav Jákl collection, Praha, Czech Republic;
SMNS Staatliches Museum für Naturkunde, Stuttgart; Germany;
TAMU Texas A&M University, College Station, USA;
WAMP Western Australian Museum, Perth, Australia.

Abbreviations of the Australian states:

ACT – Australian Capital Territory;
NSW – New South Wales;
NT – Northern Territory;
QLD – Queensland;
SA – South Australia;
TAS – Tasmania;
VIC – Victoria;
WA – Western Australia.

Other abbreviations:

ASP – apical setiferous puncture(s);
BSP – basal (prescutellar) setiferous puncture(s);
DSP – dorsal setiferous puncture(s);
PASP – preapical setiferous puncture(s);
PHSP – posthumeral setiferous puncture(s);
HT – holotype;
PT(s) – paratype(s);
LT – lectotype;
PLT – paralectotype;
[hw] – handwritten on label;
[pr] – printed on label.

Results

Genus *Setodyschirius* Fedorenko, 1996

Type species. *Dyschirius zonatus* Putzeys, 1868 (by original designation).

Setodyschirius zonatus (Putzeys, 1868)

(Fig. 1)

Dyschirius zonatus Putzeys, 1868: 9.
Dyschirius zonatus: Sloane (1923): 17.
Dyschirius zonatus: Moore et al. (1987): 79.
Setodyschirius zonatus: Fedorenko (1996): revised generic placement.

Type material examined. Holotype: **AUSTRALIA: Queensland:** '[hw] Fort Denison // Fort Denison / (Queensland) / Coll. Castelnau // [hw] Dyschirius / zonatus / Putz // [pr] Holotypus / Dyschirius / zonatus / Putzeys, 1868 // Museo Civico / di Genoa' (MCSN).
Additional material examined. AUSTRALIA: Northern Territory: 6 spec. 'Tindal, N.T. / 14.31S 132.22E / 1–20.xii.1967 / light trap / W. J. M. Vestjens' (ANIC, PBPC); 2 spec. 'Australia NT 190 m alt. / 70 km SW of Mataranka / 15˚19S 132˚50E / 22–23.xii.2008; L. Hovorka lgt.' (PBPC); 3 spec. 'Australia: NT; 168 m alt. / 25 km SE of Katherine nr Cutta / Cutta Caves 14˚31´S 132˚25´E / 23–31.xii.2008; St. Jakl lgt.' (PBPC, SJPC, MNTD); 1 spec. 'Australia, N.T. / Near Elsey Creek on Stuart / Highway, (U.V. Light) / S15°14´119´´, E133°06´749´´ // Hungarian Entomological / Expedition in Australia / leg. G. Hangay, I. Rozner, / A. Podlussány, 3.xi.2000' (HNHM).

Diagnosis. A rather large species with a rusty red pronotum, and rusty-brown elytra with a transverse fuliginous strip located mainly above midlength; elytra subparallel with striae slightly weakened lateroapically, with numerous DSP in intervals 3, 5, 7 and two ASP.
Redescription (based on HT). Habitus as in Fig. 1; length 4.00 mm. Colour of head and pronotum rusty-red, without bronze lustre; elytra rusty-brown with transverse large fuliginous strip located mainly above midlength, its anterior margin connected along suture with darker area around scutellum, apex slightly darker; antennae, mouth-parts and legs red-brown.

Head. Anterior margin of clypeus with small, moderately protruding lateral lobes, between them distinctly emarginate, clypeofrontal area with sharp and long Y-forming carina and with additional sharp transverse carina at the level of middle of eyes, in middle interrupted by longitudinal part of Y-forming carina. Facial furrows moderately long, deep and broad, moderately divergent posteriorly just below transverse carina; distance between them slightly larger than length of eye. Vertex moderately vaulted, surface even and smooth; without microsculpture or distinct punctures near back margin of eyes. Eyes moderately large and convex. Antennae moniliform.

Pronotum. Moderately convex; slightly rounded between lateral setiferous punctures, not attenuated anteriorly, anterior margin moderately convex; 0.98 times as wide as long, 1.35 times as wide as head; widest at about midlength. Anterior angles blunt, posterior ones moderately rounded. Anterior transverse impression indistinct; median line very slightly impressed in basal half; lateral channel vestigial, reflexed lateral margin just recognizable, extended slightly below middle of interval between lateral setiferous punctures.

Elytra. Subparallel; very slightly and broadly concave in basal fourth in lateral view; 1.88 times as long as wide, 1.08 times as wide as pronotum; humeri distinctly protruded, each elytron with distinct humeral tooth; elytral base very slightly sloping; outline indistinctly

broadened laterally, broadest in anterior fourth, almost straight in anterior two thirds; apex regularly rounded; suture not depressed at base. Base with very fine, vestigial basal border and without tubercles; BSP moderately large, slightly connected with first stria. Striae 1–8 deep in basal half, slightly weakened latero-apically; stria 8 almost as deep as others; striae punctures deep and dense in basal part, distinctly finer but dense up to apex; lateral channel with few fine punctures in second third. Intervals moderately convex in basal half, slightly flattened latero-apically. Three PHSP; 13–17 DSP in intervals 3, 5; 10–12 DSP in interval 7 and two ASP (in deep apical stria).

Protibia. Apical spine on protibia curved backwards, as long as slightly curved apical spur; distal marginal tooth large and moderately sharp, proximal one smaller, rather blunt.

Variability of non-type specimens. In average smaller than HT length 3.15–4.00 mm (mean 3.55 mm, n = 11). Darker area on elytra from as dark as in HT to distinctly lighter, less contrast transverse strip narrower, in one specimen reduced to discal macula. Measurement: pronotum 0.94–0.98 (mean 0.96) times as wide as long, 1.32–1.41 (mean 1.36) times as wide as head; elytra 1.88–1.95 (mean 1.92) times as long as wide, 1.06–1.13 (mean 1.09 times) as wide as pronotum.

Distribution. Australia: Queensland, Northern Territory.

Comment. *Setodyschirius zonatus* is a relatively rare species; most specimens formerly identified as *S. zonatus* are misidentified and, are mostly *S. pseudozonatus* sp. nov. or S**.** *macleayi* (Sloane, 1896). For example, Moore et al. (1987: 79) quoted *S. zonatus* from 'QLD, 60 mi. of Weipa'. One specimen with this locality label identified by Moore was examined and actually represents *S. macleayi* (see in 'Additional material examined' of the latter species).

Setodyschirius stephensii (MacLeay, 1865)

(Fig. 2)

Dyschirius stephensii MacLeay, 1865: 195.
Dyschirius stephensi: Sloane (1923): 17.
Dyschirius stephensii: Moore et al. (1987): 78.
Setodyschirius stephensi: Fedorenko (1996): revised generic placement.

Type material examined. Lectotype (by present designation): **AUSTRALIA: New South Wales:** '[hw] Mittagong / [pr] N.S.Wales. // [hw] Dyschirius / Stephensi, / N.S.W. Macl. // ANIC database No. / 25 054217 // [printed on red label] Lectotypus / Dyschirius / stephensii Macleay, 1865 / P. Bulirsch des. 2010' (ANIC). According to the original description, the locality is 'near Sutton Forest'.

Additional material examined. **AUSTRALIA: Victoria:** 5 spec. 'Australia / Cranbourne / Vict. 2.x.1960 / B. P. Moore', one of them with an additional label 'Dyschirius / stephensi M.L. / Det. B. P. Moore 1960' (ANIC, PBPC); **Tasmania:** 1 spec. '42.12S 147.38E / 1 km W Maloneys / Creek, TAS., 260 m / 19.iv.1981 / creekside past / turfs L. Hill' (ANIC).

Diagnosis. A small species with a dark fuliginous pronotum and elytra; ovate elytra with striae disappearing apically, with 4–7 DSP in intervals 3, 5, 7 and one ASP.

Redescription (based on LT). Habitus as in Fig. 2; length 2.30 mm. Colour of head and pronotum dark fuliginous, elytra, especially its basal inclination and apex, indistinctly lighter, legs and mouth-parts rusty-brownish, antennae dark fuliginous, basal antennomere brownish.

Head. Anterior margin of clypeus with distinctly protruding, narrowly rounded lateral lobes, between them very slightly emarginate; clypeofrontal area with broad and rather blunt

Y-forming carina and with additional broad and blunt transverse carina at the level of middle of eyes, in middle connected longitudinal part of Y-forming carina. Facial furrows deep, broad and parallel anteriorly, moderately divergent in posterior fourth; distance between them distinctly larger than length of eye. Vertex strongly vaulted, broad, surface even, smooth, with very fine and sparse micropunctures. Antennae moniliform.

Pronotum. Very strongly convex; outline moderately rounded, distinctly attenuated anteriorly; 0.96 times as wide as long; widest in posterior third. Anterior angles rounded, posterior ones broadly rounded. Anterior transverse impression and median line indistinct; lateral channel and reflexed lateral margin slightly recognizable around anterior setiferous puncture. Surface shiny, mirror-like.

Elytra. Ovate, slightly and very broadly concave in anterior fourth in lateral view; 1.64 times as long as wide, 1.27 times as wide as pronotum; humeri moderately protruded, each elytron with distinct humeral tooth; elytral base moderately sloping; outline in basal half broadened on sides, broadest at about middle, more strongly attenuated towards apex than towards humeri; suture not depressed at base. Base without basal border and without tubercles; BSP large, not connected with first stria. Striae 1–7 composed of rows of dense and rough punctures; all striae disappearing apically: striae 1–2, 6–7 in/before apical half, striae 3–5 slightly longer, stria 8 recognizable in its second fourth as a row of 5–6 rough punctures; striae 4–5 slightly deeper and broader behind base; lateral channel with few distinct punctures in second third; intervals slightly vaulted on disc. Three PHSP; 4–7 DSP in intervals 3, 5, 7 and one ASP (in moderately deep apical stria).

Protibia. Apical spine slightly curved backwards not inwards, as long as almost direct apical spur; distal marginal tooth large, sharp, proximal one smaller, rather sharp.

Variability of non-type specimens. Colour of upper surface often darker than LT from fuliginous to almost black; posterior clypeofrontal carina slightly more or less blunt. Eyes (damaged in LT) relatively small, moderately convex. Measurement: length 2.40–2.45 mm in specimens from VIC and 2.65 mm in specimen from TAS; pronotum 0.95–0.96 times as wide as long; 1.50–1.52 times as broad as head; elytra 1.62–1.64 times as long as wide and 1.25–1.27 times as wide as pronotum; elytra with 5–8 DSP in intervals 3, 5, 7.

Distribution. Australia: New South Wales, Victoria, Tasmania.

Comment. Lectotype designation is made to fix the identity of this species. The lectotype is partially damaged (eyes and parts of antennae and tarsi are missing).

Setodyschirius mastersii (MacLeay, 1866)

(Fig. 3)

Dyschirius mastersii MacLeay, 1866: 59.
Dyschirius mastersi: Sloane (1923): 17.
Dyschirius mastersii: Moore et al. (1987): 78.
Setodyschirius mastersi: Fedorenko (1996): revised generic placement.

Type material. Not examined. The holotype**,** i.e. the single specimens with the locality data 'King George´s Sound' (Western Australia) was originally placed in MMSA and later should be transferred to ANIC. According to personal communication with T. Weir (ANIC) and E. Jefferys (MMSA), the specimen is missing from both museums and was probably destroyed (? by noxious insects).

Additional material examined. AUSTRALIA: Western Australia: 1 spec. 'Australia WA 107 / 3 km ne. Broke /

Inlet, 2.xii.1987 / M. Baehr // Setodyschirius / mastersii / (Macl.) / det. D. Fedorenko 200' (MBMG); 3 spec. '(34.50S 116.00E) / Point d´Entrecast- / eaux, WA., 2.xi.1969 / D. D. Giuliani' (ANIC, PBPC); 1 spec. 'Australia. WA / Cape Le Grand / 14.x.1988 / H. & A. Howden // on / beach' (CNMC); 1 spec. '33.51S 123.01E / Thomas R. 23 km NW / by W Mt. Arid Nat. Pk. / WA, 13.x.1982 / D. Rentz, Stop 65 // along seashore / at high tide / mark' (ANIC); 1 spec. 'Denmark, W.A. / Walpole Road / 25.ix.1965 / E. Britton' (ANIC).

Diagnosis. A medium-sized species with black pronotum and elytra; long ovate elytra with striae rather abruptly disappearing lateroapically, with 4–5 DSP in interval 3 and one ASP.

Redescription (based on 6 specimens listed above collected by Giuliani, Howden, Britton and Baehr). Habitus as in Fig. 3; length 2.85–3.15 mm (mean 2.98, n = 6; excluding specimen collected by Rentz). Colour uniformly black, legs and mouth-parts dark fuliginous, antennae black except dark fuliginous basal antennomere.

Head. Anterior margin of clypeus with distinctly protruding, narrowly rounded lateral lobes, between them very slightly concave, clypeofrontal area with blunt T-forming carina and with vestigial or without additional transverse carina at the level of middle of eyes. Facial furrows moderately deep, very broad and parallel anteriorly, moderately strongly divergent in posterior fourth; distance between them much larger than length of eye. Vertex vaulted, broad, surface even, smooth, with very fine and sparse micropunctures. Eyes relatively small, moderately convex. Antennae moniliform.

Pronotum. Strongly convex; outline slightly to moderately rounded between lateral setiferous punctures, very slightly attenuated anteriorly; 0.96–1.00 (mean 0.98) times as wide as long, 1.39–1.46 (mean 1.41) times as wide as head; widest in posterior third. Anterior angles rounded, posterior ones broadly rounded. Anterior transverse impression very broad and superficial, median line slightly recognizable in posterior two thirds; lateral channel and reflexed lateral margin slightly recognizable only around anterior setiferous puncture. Surface shiny, mirror-like.

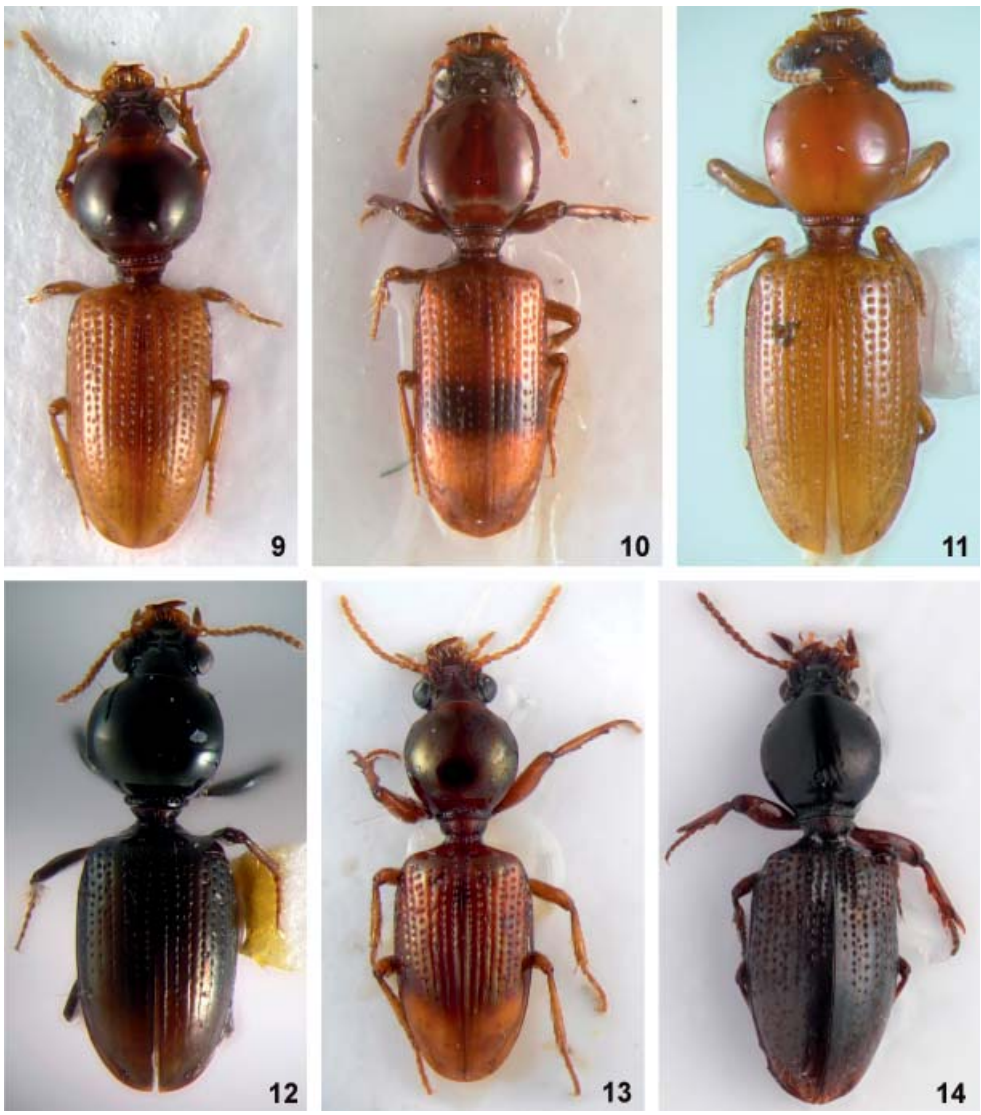
Elytra. Long ovate, distinctly and moderately broadly concave in anterior fourth in lateral view; 1.78–1.82 times as long as wide, 1.15–1.21 times as wide as pronotum; humeri distinctly protruded, each elytron with blunt humeral tooth; elytral base slightly sloping; outline in basal half very slightly broadened on sides, broadest at about middle, much more strongly attenuated towards apex than towards humeri; suture not depressed at base. Base without basal border and without tubercles; BSP large, not or slightly connected with first stria. Striae 1–8 in basal half composed of rows of dense and very rough punctures, irregular or almost disappeared before/in apical half; in apical half stria 1 moderately deep and impunctate, striae 2–4 and 8 superficial and striae 5–7 disappeared; lateral striae punctures much larger than width of intervals; lateral channel with few very fine punctures in second fourth; intervals slightly vaulted on disc. Three PHSP; 4–(5) DSP in interval 3 and one ASP (in moderately deep apical stria).

Protibia. Apical spine slightly curved backwards not inwards, as long as almost direct apical spur; distal marginal tooth large, sharp, proximal one smaller, rather sharp.

Variability. The specimen collected by Rentz has elytra with a slight bronze lustre and a fuliginous apical part, pronotum narrower, 0.95 times as wide as long, and elytra broader, 1.71 times as long as broad. The specimen collected by Britton is paler: fuliginous with elytra brownish.

Figs. 1–8. Habitus of *Setodyschirius* species. 1 – *S. zonatus* (Putzeys, 1868)(HT, 4.00 mm); 2 – *S. stephensii* (MacLeay, 1865)(LT, 2.30 mm); 3 – *S. mastersii* (MacLeay, 1866) (non type specimen from Point d'Entrecast, 2.85 mm); 4 – *S. torrensensis* (Blackburn, 1890)(HT, 4.70 mm); 5 – *S. ovensensis* (Blackburn, 1891) (HT, 2.60 mm); 6 – *S. macleayi* (Sloane, 1896) (LT, 4.15 mm); 7 – *S. wilsoni* (Sloane, 1923) (HT, 3.05 mm); 8 – *S. pseudozonatus* sp. nov. (HT, 3.05 mm).

Distribution. Australia: southernmost part of Western Australia.
Comment. The original description of this species is very short; MacLeay (1866) distinguished it from *D. stephensii* only by the elytra being more concave in the basal fourth in lateral view and by the elytral striae being more distinct apically. The description and quoted differences match the specimens examined above, which were all found near the type locality in



Figs. 9–14. Habitus of *Setodyschirius* species. 9 – *S. pseudozonatus* sp. nov. (differently coloured PT, 2.85 mm);10 – *S. storeyi* sp. nov. (PT, 3.30 mm); 11 – *S. jabiru* sp. nov. (HT, 2.65 mm); 12 – *S. monteithianus* sp. nov. (HT, 3.50 mm); 13 – *S. weiri* sp. nov. (HT, 4.05 mm); 14 – *S. kangaroo* sp. nov. (HT, 2.80 mm).

southernmost part of Western Australia; moreover, *S. mastersii* seems to be the only species occuring in this area. Nevertheless, this is not sufficient to confirm the conspecifity of the examined specimens with the lost type specimen.

Setodyschirius torrensensis (Blackburn, 1890)

(Fig. 4)

Dyschirius torrensensis Blackburn, 1890: 82.
Dyschirius torrensensis: Sloane (1923): 17.
Dyschirius torrensensis: Moore et al. (1987): 79.
Setodyschirius torrensensis: Fedorenko (1996): revised generic placement.

Type material examined. Holotype: **AUSTRALIA: South Australia:** '[on the same label as glued beetle] T 3375 –A– // [printed on circle with orange border] Type // Blackburn / coll. / 1910–236 // [hw] Dyschirius torrensensis Blackb.' (BMNH). According to the original description, the type locality is 'S.A., banks of the Torrens near Woodville'.
Additional material examined. AUSTRALIA: New South Wales: 6 spec. 'Australia, NSW 26 / Kinchega NP, Darling / R. 20 km ssw. Menindee / 23–24.xii.1998, M. Baehr // Dyschirius / torrensensis / Blackb. / det. M. Baehr ´99' (MBMG, PBPC); 1 spec. 'Australia, NSW 29 / Darling R., Paramaroo / L. 15 km nne. Menindee / 25–26.xii.1998, M. Baehr // Dyschirius / torrensensis / Blackb. / det. M. Baehr ´99' (MBMG). **South Australia:** 1 spec. 'S. Aust. Jirry´s Well / 24.1 km E Tintinara / UV Licht., 3.ii.1965 / P. Aitken, NB Tindale' (SAMA); 1 spec. 'S. Aust. 4 km E Collabarlow / Bore 3 km E L. Frome / At light., 21.xi.1975 / G. F. Gross.' (SAMA). **Victoria:** 2 spec. 'Australia / Cranbourne / Vict. 2.x.1960 / B. P. Moore' (ANIC, PBPG); 2 spec. 'Wilsons Prom / VIC / i.1962, C.W. // Dyschirius / torrensensis / Blackb. / det. M. Baehr ´04' (SAMA, PBPC). **Queensland:** 'Australia, n. QLD / Pinarendi Stn. / 60 km N of Mt. Camet / 7.xi.1989, O. Heiner' (QDPM). **Northern Territory:** 1 spec. '12.06S 133.04E / Cooper Creek, N.T. / 19 km E by S of Mt. Borradaile / 5.vi.1973, M. S. Upton' (ANIC).

Diagnosis. A very large species with a rusty brown to brown pronotum and rusty brown elytra; with X-forming carina on clypeofrontal area, with long ovate elytra with striae slightly weakened lateroapically, with 6–8 DSP in intervals 3, 5, 7 and one ASP.
Redescription (based on HT). Habitus as in Fig. 4 in this paper and Fig. 1 in Fedorenko (1996); length 4.70 mm. Colour uniformly rusty-brown, elytral apex, legs, antennae and mouth-parts slightly lighter, rusty-yellowish.

Head. Anterior margin of clypeus with distinctly protruding, narrowly rounded lateral lobes, between them straight; clypeofrontal area with more or less X-forming carina, its anterior part blunt and obtuse, posterior part composed of two sharp obtusangular carinae (Fedorenko 1996, Fig. 1): its anterior half distinctly and posterior half slightly divergent posteriorly. Facial furrows deep, moderately broad and parallel anteriorly, strongly divergent in posterior fourth; distance between them larger than length of eye. Vertex vaulted, broad, surface even, smooth, with very fine and sparse micropunctures. Eyes moderately large, convex. Antennae submoniliform.

Pronotum. Strongly convex; outline strongly, regularly rounded between anterior and posterior setiferous punctures; indistinctly attenuated anteriorly; anterior margin strongly convex; 0.98 times as wide as long, 1.35 times as wide as head; widest in about midlength. Anterior angles distinct, blunt, not rounded, posterior ones broadly rounded. Anterior transverse impression very broad and superficial, median line very thin, slightly more impressed posteriorly; lateral channel distinct, broadened anteriorly, reflexed lateral margin not shortened, disappearing just behind posterior setiferous puncture. Surface shiny, mirror-like, with fine micropunctures.

Elytra. Long ovate, not concave in anterior fourth in lateral view; 1.70 times as long as wide, 1.28 times as wide as pronotum; humeri distinctly protruded, without humeral teeth; elytral base very slightly sloping; outline in basal half moderately broadened on sides, broadest at about anterior third, much more strongly attenuated towards apex than towards humeri; suture not depressed at base. Base without basal border and tubercles; BSP moderately large, distinctly connected with first stria. Striae 1–8 deep, slightly weakened, not disappeared latero-apically, striae punctures very dense and moderately rough, slightly finer and sparser latero-apically; lateral channel with few fine punctures in second third; intervals moderately vaulted on disc, slightly flattened latero-apically. Three PHSP; 6–8 DSP in intervals 3, 5, 7 and one ASP (in very deep and broad apical stria).

Protibia. Apical spine slightly curved backwards not inwards, as long as slightly curved apical spur; distal marginal tooth large, sharp, proximal one smaller, moderately sharp.

Variability of non-type specimens. Four specimens from Victoria can be distinguished from HT and other studied specimens by distinctly darker, fuliginous colour of the pronotum and the elytra and by a slightly different clypeofrontal structure: posterior part of X-forming carina is directly divergent posteriorly, not obtusely angular. Measurement: length 4.45–5.20 mm (mean 4.85 mm, n = 14); pronotum 0.97–1.05 (mean 1.01) times as wide as long; 1.34–1.41 (mean 1.38) times as broad as head; elytra 1.69–1.77 (mean 1.73) times as long as wide and 1.24–1.31 (mean 1.27) times as wide as pronotum.

Distribution. Australia: South Australia, New South Wales, Victoria, Queensland, Northern Territory.

Setodyschirius ovensensis (Blackburn, 1891)

(Fig. 5)

Dyschirius ovensensis Blackburn, 1891: 775.
Dyschirius ovensensis Sloane (1923): 17.
Dyschirius ovensensis: Moore et al. (1987): 78.
Setodyschirius ovensensis: Fedorenko (1996): revised generic placement.

Type material examined. Holotype: **AUSTRALIA: Victoria:** '[on the same label as glued beetle] T. 352 A– // [printed on circle with orange border] Type // [pr] Blackburn / coll. 1910–236. // [hw] Dyschirius / ovensensis, Blackb. // [printed on circle with orange border] SYN– / TYPE' (BMNH). Paratypes: **AUSTRALIA: Victoria:** 2 spec. '[pr] Victorian Alps / Blackburn // [hw] Dyschirius / ovensensis Bl / cotype // [pr] SAMA Database / No. 25 / 0322737–8' (SAMA, PBPC). According to the original description the type locality is 'Victoria, on the banks of the Owens River'.

Diagnosis. A small species with dark fuliginous pronotum and elytra, each elytron with distinct subapical rusty-yellow macula; slightly ovate elytra with striae abruptly disappearing before elytral midlength, with three DSP in interval 3 and two ASP.

Redescription (based on HT and PTs). Habitus as in Fig. 5; HT 2.60 mm long, PTs 2.65 mm long. Colour dark fuliginous, anterior part of head and elytral base indistinctly lighter, fuliginous, each elytron with distinct subapical rusty-yellow macula; legs and mouth-parts rusty-brown, antennae brownish.

Head. Anterior margin of clypeus with moderately protruding, narrowly rounded lateral lobes, between them slightly emarginate; clypeofrontal area with short and blunt T-forming carina with blunt additional transverse carina at the level of middle of eyes, in middle inter-

rupted by longitudinal part of T-forming carina. Facial furrows moderately deep, broad and parallel anteriorly, strongly divergent in posterior fourth; distance between them distinctly larger than length of eye. Vertex vaulted, broad, surface even, smooth, with very fine and sparse micropunctures. Eyes relatively small, rather slightly convex. Antennae moniliform.

Pronotum. Strongly convex; outline regularly, strongly rounded, slightly to moderately attenuated anteriorly; in HT 0.99 times and in PTs 0.94 and 0.97 times as wide as long, in HT 1.41 times and in PTs 1.42 and 1.43 times as wide as head; widest in posterior third. Anterior angles rounded and sloping down, posterior ones broadly rounded. Anterior transverse impression indistinct, median line just recognizable in posterior half; lateral channel and reflexed lateral margin fine, slightly impressed before/around anterior setiferous puncture. Surface shiny, mirror-like.

Elytra. Slightly ovate, very deeply and moderately broadly concave in anterior fourth in lateral view; in HT 1.60 times and in PTs 1.66 and 1.64 times as long as wide, in HT 1.29 times and in PTs 1.29 and 1.30 times as wide as pronotum; humeri moderately distinctly protruded, each elytron with distinct humeral tooth; elytral base moderately to rather strongly sloping; outline in basal half slightly broadened on sides, broadest at about middle, strongly attenuated towards apex and slightly towards humeri; suture not depressed at base. Base without basal border and tubercles; BSP large, connected with first stria. Striae 1–7 very specific: in basal part recognizable as rows of deep and very rough punctures, then abruptly disappearing apically; striae 1–2 and 4–5 disappearing in anterior third, stria 3 and especially 6–7 longer, disappearing in apical half; stria 8 composed of 1–2 rough punctures in basal third; lateral channel with few very fine punctures in second third; intervals slightly vaulted on disc; lateral channel very broad and deep around PHSP, abruptly narrowed apically. Three PHSP; three DSP (anterior in interval 3, middle and posterior ones in smooth apical half, in interval 3) and two ASP (in very deep apical stria).

Protibia. Apical spine on protibia curved backwards, as long as slightly curved apical spur; distal marginal tooth large and moderately sharp, proximal one smaller, rather blunt.

Variability. None observed.

Distribution. Australia: Victoria.

Setodyschirius macleayi (Sloane, 1896)

(Fig. 6)

Dyschirius macleayi Sloane, 1896: 279.
Dyschirius macleayi: Sloane (1923): 17.
Dyschirius macleayi: Moore et al. (1987): 78.
Setodyschirius macleayi: Fedorenko (1996): revised generic placement.

Type material examined. Lectotype (by present designation): **AUSTRALIA: Western Australia:** '[hw] N. W. Aust // Dyschirius / macleayi Sl. // [printed on red label] Syntype // ANIC database No. / 25 054215 // [printed on red label] Lectotypus / Dyschirius / macleayi Sloane, 1896 / P. Bulirsch des. 2010' (ANIC). Paralectotype: **AUSTRALIA: Western Australia:** [pr] 'N.W. Austra[lia] // On pernament loan from / Macleay Museum / University of Sidney / Dyschirius / sp. / det. B. P. Moore 1976 // [printed on red label] Syntype // ANIC database No. / 25 054214 // [printed on red label] Paralectotypus / Dyschirius / macleayi Sloane, 1896 / P. Bulirsch des. 2010' (ANIC).

Additional material examined. AUSTRALIA: Northern Territory:1 spec. 'Caranbirini Waterhole / 16.16S 136.05E / 33 km SW of / Borroloola, N.T. / 21.iv.1976, at light / J. E. Feehan' (ANIC); 1 spec. 'McArthur River, N.T. / 16.39S 135.51E / 80 km SW of Borroloola / 13.v.1973, M. S. Upton' (ANIC); 1 spec. '15.58S 129.02E NT / 25.8

km S of Jarrnarm / junction, Hazard Ck, / 1–11.vi.2001 / A. Calder & / R. Oberprieler // flight intercept trap' (ANIC); 1 spec. 'Tindal, N.T. / 14.31S 132.22E / 1–20.xii.1967 / light trap / W. M. J. Vestjens // Dyschirius / macleayi Sl / det B. P. Moore 1969' (ANIC); 1 spec. '15.58S 129.02E NT / GPS Hazard Ck / 23 km SSW Jarrnarm / Keep River Nat. Pk / 27.v.2001 / T. Weir, P. Bouchard // FIT / ANIC, 1956 / open forest, sandy soil' (ANIC); 1 spec. 'Australia, N.T.: Gregory N.P. / Limestone Gorge / 25.iv.2004 / lgt. M. Langer // S 16.02.849 / E 130.22.979 / Höhe 87 m / Lichtfang' (MBMG); 2 spec. 'Austral North. T. / Katharine, xii. 1957 / leg. H. Demarz' (MBMG, PBPC); 1 spec. 'Australia, N.T. m50 / Victoria River Road House / 20–21.+24–25.iii.1996, leg. P. M. Giachino' (PMGI, PBPC); 12 spec. 'Australia, N.T. m50 / Victoria River Road House / 1.i.1997, leg. P. M. Giachino' (PMGI, PBPC); 8 spec. 'Australia N.T. Gregory N.P. / Victoria Crossing 1–2. i.1997 / at light, al lume / Leg. L. Toledano, R. Olivieri' (LTVI, MBMG, PBPC); 1 spec. 'Mainoro, Austr. / NT. i. 1958 / leg. Demarz' (MBMG); 4 spec. 'Australia N.T.; Gregory N.P. / Timber Creek, 30–31.xii.1996 / at light–al lume / leg. L. Toledano, R. Olivieri' (MBMG, LTVI); 3 spec. 'Australia N.T. / Timber Creek, m50 / 30–31.i.1997 / P. M. Giachino leg.' (PMGI, PBPC); 1 spec. 'Aust: NT; Arnhemland / 33 km E Jabiru, Podocarp / Canyon, Rainforest / 15.xii.1993, uv light / S & J Peck, 93–128' (CNMC);8 spec. 'Australia: NT; 168 m alt. / 25 km SE of Katherine nr Cutta / Cutta Caves 14˚31´S 132˚25´E / 23–31.xii.2008; St. Jakl lgt.' (PBPC, MNTD, SJPC); 3 spec. 'Australia: NT; 168 m alt. / 25 km SE of Katherine nr Cutta / Cutta Caves 14˚31´S 132˚25´E / 26.ii–2.iii.2009; St. Jakl lgt.' (PBPC, SJPC); 12 spec. 'Australia NT 190 m alt. / 70 km SW of Mataranka / 15˚19S 132˚50E / 22–23.xii.2008; St. Jakl or L. Hovorka or Sv. Bílý lgt.' (PBPC, MNTD, NMPC, SJPC); 10 spec. 'Australia NT 58 m alt. / Victoria River road house / Gregory NP 15˚37´S 131˚07´E / 9–10.iv.2009; St. Jakl lgt. (PBPC, MNTD, SJPC); 1 spec. 'Australia NT 37 m alt / Nitmiluk N.P; Edit Falls / 14˚10´S 132˚06´E / 3.xii.2008; St. Jakl lgt.' (PBPC); 1 spec.'Australia NT 148 m alt / 3 km N of Mataranka / 14˚53´S 132˚01´E / 18–19.xii.2008; St. Jakl lgt.' (PBPC). **Western Australia:** 2 spec. '100mi. E. of Kununurra / W.A., light trap. / 27.iii.1966 J. A. Mahoon' (ANIC, PBPC). **Queensland:** 1 spec. 'Australia: 60 mi. E. Weipa / N.Q. 25.xi.1974 / light / M. S. Moundy // Dyschirius / zonatus Putz / det B. P. Moore 1979' (ANIC); 3 spec. 'Australia: CYP / 12.40S 142.40E / Batavia Downs / 3.–10.iii.1993. At light / I. Cunningham' (DPIM, PBPC); 1 spec. 'Australia: QLD. / 23 km E Mareeba / Kanervo Rd.11.ii.1989 / H. & A. Howden' (CNMC); 2 spec. 'Australia: QLD. / 8 km N. Mareeba / 12.ii.1997 / At UV light / H. & A. Howden' (CNMC, PBPC).

Diagnosis. A large species with dark fuliginous pronotum, rusty-brown elytra with apex and indistinct humeral spots lighter; subparallel elytra with striae almost disappearing lateroapically, with 3–7 DSP in intervals 3, 5, 7 and one ASP.

Redescription (based on LT and PLT). Habitus as in Fig. 6; length LT 4.15 mm, PLT 4.10 mm. Colour of head and pronotum fuliginous with slight bronze lustre, anterior parts of head, elytra, legs, antennae and mouth-parts rusty-brownish, elytral apex and indistinct humeral spots lighter.

Head. Anterior margin of clypeus with distinctly protruding, narrow lateral lobes, between them slightly, regularly emarginate; clypeofrontal area with sharp Y-forming carina and with additional transverse moderately sharp carina at the level of middle of eyes, in middle interrupted by longitudinal part of Y-forming carina. Facial furrows deep, broad and parallel anteriorly, strongly divergent in posterior fourth; distance between them larger than length of eye. Surface of vertex even, smooth, with very fine and sparse micropunctures. Eyes moderately large, strongly convex. Antennae moniliform.

Pronotum. Strongly convex; outline regularly and strongly rounded, not attenuated anteriorly; LT 0.99, PLT 0.98 times as wide as long, LT and PLT 1.33 times as wide as head; widest in about middle. Anterior angles blunt, posterior ones moderately rounded. Anterior transverse impression very broad and superficial; median line indistinctly impressed, just recognizable before base; lateral channel very narrow, reflexed lateral margin disappeared in middle between lateral setiferous punctures. Surface shiny, mirror-like.

Elytra. Elongate, slightly and broadly concave in anterior fourth in lateral view; LT 1.82, PLT 1.85 times as long as wide, LT 1.19, PLT 1.17 times as wide as pronotum; humeri distinctly protruded, without humeral teeth; elytral base very slightly sloping; outline in basal half slightly broadened on sides, broadest at about middle, more strongly attenuated towards apex than towards humeri; suture not depressed at base. Base with vestigial basal border and without tubercles; BSP indistinctly connected with first stria. Striae 1–7 deep, roughly and densely punctate, first stria deep apically, inner striae and its punctures disappeared in apical third, outer ones in apical half; striae punctures not narrower than width of intervals; stria 8 finer, recognizable in second fourth as a row of 4–5 moderately rough punctures; striae 2–3 and 6–7 weakened basally; striae 4–5 slightly deeper and broader basally; intervals vaulted on disc. Three PHSP; 5–7 DSP in intervals 3, 5; 3–4 DSP in interval 7 and one ASP (in deep apical stria).

Protibia. Apical spine slightly curved backwards but not inwards, as long as almost direct apical spur; distal marginal tooth very large, sharp, proximal one smaller, rather sharp.

Variability of non-type specimens. Head with a blunter transverse carina; pronotum with reflexed portion of lateral margin more abbreviated; elytra with more or less distinct humeral spots and with more dense DSP in intervals 3 (5–9) and / or 5 (5–8). Measurement: length 3.80–4.25 mm (mean 3.93 mm, n = 30, one specimen 3.60 mm); pronotum 0.96–1.04 (mean 0.99) times as wide as long; 1.28–1.36 (mean 1.32) times as broad as head; elytra 1.76–1.88 (mean 1.82) times as long as wide and 1.10–1.19 (mean 1.15) times as wide as pronotum.

Distribution. Australia: Western Australia, Northen Territory, Queensland.

Comment. Lectotype and paralectotype designation is made to fix the identity of this species.

Setodyschirius wilsoni (Sloane, 1923)

(Fig. 7)

Dyschirius wilsoni Sloane, 1923: 17.
Dyschirius wilsoni: Moore et al. (1987): 79.
Setodyschirius wilsoni: Fedorenko (1996): revised generic placement.

Type material examined. Holotype: **AUSTRALIA: Victoria:** '[pr] Beaconsfield V[ictoria] / F. E. Wilson / [hw] 27.xii.1921 // [pr] Type // [printed on pink label] Holotype / [hw] Dyschirius / wilsoni Sl / PJD // [hw] Dyschirius / wilsoni Sl / [pr] Id. by T. G. Sloane // ANIC database No. / 25 054216' (ANIC).

Additional material examined. AUSTRALIA: Victoria: 1 spec. 'Australia: / Cranbourne / Vict. 2.x.1960 / B. P. Moore // Dyschirius / wilsoni / Sloane / compared with type / B. P. Moore 1960' (ANIC). **Australian Capital Territory:** 1 spec. 'Australia: / Black Mtn / A.C.T. 1.xi. 1974 / B. P. Moore' (ANIC); 6 spec. 'Australia: / Black Mtn / A.C.T. 4.xi. 1974 / B. P. Moore' [one of them with an additional label 'Dyschirius / wilsoni Sl. / det. B. P. Moore 75'] (ANIC, PBPC); 5 spec. 'Australia: / Black Mtn / A.C.T. 19.x.1976 / B. P. Moore' [one of them with an additional label 'Dyschirius / wilsoni Sl. / det. B. P. Moore 76'] (ANIC, PBPC); 8 spec. 'Australia: / Black Mtn /A.C.T. xi.1974 / B. P. Moore' [one of them with an additional label 'Dyschirius / wilsoni Sl. / det. B. P. Moore 90'] (ANIC, PBPC); 2 spec. 'Iower E slope / Black Mtn ACT / 1.xi.1974 / K. R. Pullen // Kim Pullen / Collection' (ANIC). **South Australia:** Nepea R / Coates // SAMA database / No. 25–032746' (SAMA).

Diagnosis. A rather small species with a black pronotum and brown fuliginous elytra, each elytron with a large rusty-yellow spot in the apical third; ovate elytra with striae disappearing lateroapically, with numerous DSP in intervals 3, 5, 7 and two ASP.

Redescription (based on HT). Habitus as in Fig. 7; length 3.05 mm. Colour of head and

pronotum black, elytra brown fuliginous, each elytron with large, moderately distinct rusty-yellow spot in apical third, legs and mouth-parts rusty-brown, antennae fuliginous, two basal and base of next two antennomeres lighter.

Head. Anterior margin of clypeus with moderately protruding, narrowly rounded lateral lobes, between them very slightly emarginate; clypeofrontal area with moderately sharp wide Y-forming carina and with additional broad transverse carina at the level of middle of eyes, in middle connected longitudinal part of Y-forming carina. Facial furrows deep, narrow and parallel anteriorly, strongly divergent in posterior fourth, interrupted by posterior transverse carina; distance between them almost twice larger than length of eye. Vertex strongly vaulted, broad, surface even, smooth, with very fine and sparse micropunctures. Eyes small, moderately convex. Antennae submoniliform.

Pronotum. Strongly convex; outline regularly and strongly rounded, moderately attenuated anteriorly; 1.00 times as wide as long, 1.63 times as wide as head; widest in about posterior third. Anterior angles rounded, posterior ones broadly rounded. Anterior transverse impression indistinct, median line just recognizable in posterior third; lateral channel and reflexed lateral margin slightly recognizable only before/around anterior setiferous puncture. Surface shiny, mirror-like.

Elytra. Ovate, deeply and moderately broadly concave in anterior fourth in lateral view; 1.64 times as long as wide, 1.20 times as wide as pronotum; humeri moderately protruded, each elytron with distinct and sharp humeral tooth; elytral base rather slightly sloping; outline in basal half moderately broadened on sides, broadest distinctly before middle, more strongly attenuated towards apex than towards humeri; suture not depressed at base. Base without basal border and without tubercles; BSP large, slightly connected with first stria. Striae 1–8 composed of rows of large and rough punctures; striae disappearing before/in apical half, striae 5–7 punctures basally distinctly larger than width of intervals, stria 8 recognizable in its middle third as a row of 5–6 rough punctures; lateral channel with few rather deep punctures in middle third; intervals moderately vaulted in basal half; apical half of elytra smooth, except rows of DSP. Three PHSP; 14–19 DSP in intervals 3, 5, 7 and two ASP (in moderately deep apical stria).

Protibia. Apical spine slightly curved backwards not inwards, as long as almost direct apical spur (based on non type specimens, HT has both apical spines damaged); distal marginal tooth moderately large, sharp, proximal one smaller, sharp.

Variability of non-type specimens. Elytra slightly darker than HT, pronotum more or less attenuated anteriorly. Measurement: length 2.60–3.00 mm (mean 2.83 mm, n = 17); pronotum 0.96–1.04 (mean 0.99) as wide as long; 1.56–1.68 (mean 1.62) times as broad as head; elytra 1.57–1.66 (mean 1.62) times as long as wide and 1.17–1.24 (mean 1.20) times as wide as pronotum.

Distribution. Australia: Victoria, Australian Capital Territory, South Australia.

Setodyschirius pseudozonatus sp. nov.

(Figs. 8, 9, 15, 19)

Type locality. Australia, Northern Territory, 70 km SW of Mataranka, 15°19´S 132°50´E

Type material. Holotype: ♂, **AUSTRALIA: Northern Territory:** 'Australia, NT 190 m alt. / 70 km SW of Mataranka / 15˚19S 132˚50E / 22–23.xii.2008; St. Jakl lgt.' (MNTD). Paratypes (407 specimens): **AUSTRALIA:**

Figs. 15–22. 15–18 – aedeagus, right lateral view: 15 – *Setodyschirius pseudozonatus* sp. nov. (HT); 16 – *S. storeyi* sp. nov.(HT); 17 – *S. monteithianus* sp. nov. (PT); 18 – *S. weiri* sp. nov.; (HT). 19–22 – apex of aedeagus, ventral view: 19 – *Setodyschirius pseudozonatus* sp. nov. (HT); 20 – *S. storeyi* sp. nov. (HT); 21 – *S. monteithianus* sp. nov. (PT); 22 – *S. weiri* sp. nov. (HT).

Northern territory: 11 spec. with the same data as HT (PBPC, SJPC, MNTD); 20 spec. with the same data as HT but L. Hovorka lgt.' (PBPC, ANIC, NMPC, BMNH); 2 spec. with the same data as HT but S. Bílý lgt.' (NMPC); 11 spec. 'Australia NT 148 m alt / 3 km N of Mataranka / 14˚53´S 132˚01´E / 18–19.xii.2008; St. Jakl lgt.' (PBPC, SJPC, MNTD); 1 spec. 'Australia NT 190 m alt. / 70 km SW of Mataranka / 15˚19´S 132˚50´E / 14–15.i.2009; St. Jakl lgt.' (PBPC); 1 spec. 'Australia 07, NT 37, Gregory NP / Old Victoria R. Cr. 5 km w. / Victoria River Roadh. Victoria / Hwy. 15.34.87S, 131.06.24E / 35 m, 11–12.xi.2007, M. Baehr' (MBMG); 1 spec. 'Australia 07, NT 19, 3 km e. / Elsey Creek, Roper Bar Rd. / 15.00.23S, 133.16.72E / 148 m, 5–6.xi.2007, M. Baehr' (MBMG); 1 spec. '16.34S 135.41E / 14 km NW of Cape / Crawford, NT. / 6.xi.1975 / M. S. Upton' (ANIC); 1 spec. '12.52S 132.50E / Koongarra / 15 km E. of Mt. Cahill, N.T. / 15.xi.1972 / M. S. Upton' (ANIC); 4 spec. '16.08S 136.06E / 22 km WSW of / Borroloola, NT. / 2.xi.1975 / M. S. Upton' (ANIC, PBPC); 1 spec. '13.45S 131.34E GPS / Butterfly Gorge Nature / Pk Douglas River NT / 19.vii.1994, at light / T. Weir, A. Roach' (ANIC); 1 spec. '15.51S 129.06 E NT / GPS, 9 km S Jarrnarm / Keep River Nat. Pk / 30.v.2001 / T. Weir, P. Bouchard // at light / open forest' (ANIC); 13 spec. 'Tindal N.T. / 14.31S 132.22E / 1–20.xii.1967 / light trap / W. J. M. Vestjens' (ANIC, PBPC); 1 spec. '12.47S 132.51E / 19 km NE. by E. of Mt. Cahill / N.T., 16.xi.1972 / M. S. Upton' (ANIC); 6 spec. 'Australia N.T. / Katherine / 30–31.iii.1993 / at light– al lume / Leg. Luca Toledano' (LTVI, PBPC, MBMG); 2 spec. 'Australia N.T. / Victoria Crossing / 28–29.iii.1993 / at light–al lume / Leg. L. Toledano' (LTVI, PBPC); 1 spec. 'Australia N.T. Gregory N.P. / Victoria Crossing 1–2.i.1997 / at light – al lume / Leg. L. Toledano, R. Olivieri' (LTVI); 7 spec. 'Australia N.T. m50 / Victoria River Road House / 20–21.+24–25.iii.1996 / P. M. Giachino leg.' (PMGI, LTVI, PBPC); 4 spec. 'Australien, NT / 17 km ne Willeroo / 8.xi.1984 / M.+B. Baehr' (MBMG, PBPC); 1 spec. 'Aust: NT; Arnhemland / 33 km E Jabiru, Podocarp / Canyon, Rainforest / 15.xii.1993, uv light / S & J Peck, 93–128' (CNMC); 1 spec. 'Burrell´s Ck. / Stuart H´way, NT. / 25.xi.1972 / D. H. Colless // At light' (ANIC); 2 spec. 'Austral. North. T. / Beswick, i.1958 / leg. H. Demarz' (MBMG); 1 spec. 'Australia, NT, 95–7 / Mary River, 115 km / e. Darwin, 2–3.viii. / 1995, M. Baehr' (MBMG); 2 spec. 'Australia: N.T.; / 32 km N of Elliot / 7.iv.1980 / at blacklight / GF Hevel & JA Fortin' (MBMG, PBPC); 4 spec. 'Australia 07, NT40, Gregory / NP, Bullita, East Baines R. / 16.06.27S, 130.25.31E, 55 m / 12–13.xi.2007, M. Baehr' (MBMG, PBPC); 1 spec. 'Australia 07, NT13, Kakadu / NP, South Alligator R. Cr. / Old Jim Jim Rd., 43 m / 13.02.95S, 132.19.13E / 3–4.xi.2007, M. Baehr' (MBMG); 30 spec. 'Australia: NT; 168m alt. / 25 km SE of Katherine nr Cutta / Cutta Caves 14˚31´S 132˚25´E / 23–31.xii.2008; St. Jakl lgt.' (PBPC, SJPC, MNTD); 12 spec. 'Australia: NT; 168 m alt. / 25 km SE of Katherine nr Cutta / Cutta Caves 14˚31´S 132˚25´E / 26.ii–2.iii.2009; St. Jakl lgt.' (PBPC, SJPC, MNTD); 1 spec. 'Australia N.T. / Gregory N.P. / 26.iii.1993' (PBPC); 6 spec. 'Australia NT 58 m alt. / Victoria River road house / Gregory NP 15˚37´S 131˚07´E / 9–10.iv.2009; St. Jakl lgt. (PBPC, MNTD, SJPC); 4 spec. 'Australia NT 63m alt / Litchfield NP, Tjaynera Falls / 13˚15´S 130˚44´E / 20–27.xi.2008; St. Jakl lgt' (PBPC, SJPC, MNTD); 4 spec. 'Australia NT 100m alt / 25km S of Katherine, rd. to / Kununnura; 14˚44´S 132˚01´E / 17–31.xii.2008; St. Jakl lgt' (PBPC, SJPC, MNTD); 1 spec. 'Australia NT 61m alt / Kakadu N.P., Gunlom env / 13˚26´S 132˚24´E / 6–10.iv.2009; St. Jakl lgt' (PBPC); 1 spec. 'Australia, N.T. / Near Elsey Creek on Stuart / Highway, (U.V. Light) / S15°14´119´´ E133°06´749´´ // Hungarian Entomological / Expedition in Australia / leg. G. Hangay, I. Rozner, / A. Podlussány, 3.xi.2000' (HNHM); 4 spec. 'N.T., Katherine / Australia / 22.xi.1990, At light / W. F. Chamberlain' (TAMU, PBPC); 1 spec. 'Springvale, / N.T., Katherine / Australia / 25.xi.1990, At light // coll. by W. F. Chamberlain' (TAMU); 1 spec. 'Bark Hut In, / N.T., Australia / 19.xi.1990, At light / W. F. Chamberlain' (TAMU); 7 spec. 'Howard Springs, / N. T., Australia / 18.xi.1990, At light / W. F. Chamberlain' (TAMU, PBPC). **Western Australia:** 167 spec. 'Australia: WA Kimberly / Gibbs river road, 20 m alt. / 14˚17S 127˚53E; 14–15.iv.2009 / Pentecost riv. crossing; S. Jakl lgt. ' (PBPC, SJPC, WAMP, NMPC); 20 spec. 'Australia WA; Kimberley / Hidden valley NP / Kununurra 15˚46S 128˚44E; 15–16.iv.2009 / 64 m alt.; S. Jakl lgt.' (PBPC, SJPC, WAMP); 1 spec. 'Australia07, WA 51, Mistake / Cr. 12 km n. Turkey Creek / Great Northern Hwy., 217 m / 16.55.83S, 128.14.84E / 16–17.xi.2007, M. Baehr' (MBMG); 2 spec. 'Australia 07, WA84, Ord. R. Cr. / 102 km nne. Halls Creek, Victoria / Hwy. 17.28.74S, 127.57.11E / 298 m, 26–27.xi.2007, M. Baehr' (MBMG, PBPC); 3 spec. '15.02S 126.55E / Drysdale River W.A. / 3–8.viii.1975 / I. F. B. Common / and M. S. Upton' (ANIC, PBPC); 1 spec. 'Kimberley Bore / W.A. at light / 13.iii.1980 / K. & E. Carnaby' (ANIC); 1 spec. '12.47S 132.51E / 19 km NE. by E. of Mt.Cahill / N.T., 16.xi.1972 / M. S. Upton' (ANIC); 2 spec. '14.52S 125.50E W.A. / "The Crusher" Calm / Site 9–1 4 km SbyW / Mining Camp Mitchell / Plateau 2–6.vi.1988 / I. D. Naumann // at light, open / forest near / closed forest margin' (ANIC, PBPC); 2 spec. '15.38 S 125.15 E / Calm Site 28–3, 4 km W / of King Cascade / W.A. 12–16.vi.1988 / T. A. Weir // at light / closed forest' (ANIC, PBPC); 1 spec. '16.31

S 125.16 E / Calm Site 25–1 / Synnot Ck.W.A. / 17–20.vi.1988 / T. A. Weir // at light / open forest' (ANIC); 1 spec. '16.31 S 125.16 E / Calm Site 25–1 / Synnot Ck. W.A. / 17–20.vi.1988 / T. A. Weir // at light / closed forest margin' (ANIC); 1 spec. '16.22S 125.12E W.A. / Charnley Riv. 2 km SW / Rolly Hill Calm Site / 25–2 16–20.vi.1988 / I. D. Naumann // at light, open / forest near / closed forest margin' (ANIC); 3 spec. 'Australia: / N.W.A. / Onslow / at light 1957 / A. Snell' (ANIC, PBPC); 2 spec. [on common label] 'Onslow / N–WA / ii.1955 ETS // P. J. Darlington // J. G. Brooks / Bequest 1976 // species prope nov.' (ANIC); 8 spec. '14.49S 126.49E / Carson escarpment / W.A. 9–15.viii.1975 / I. F. B. Common / and M. S. Upton' (ANIC, PBPC); 5 spec. 'Australien, WA / 135 km n Hall's / Creek, 14.xi.1984 / M.+B. Baehr' (MBMG, PBPC); 3 spec. 'Australia N.T. / Gregory N.P. / 26.iii.1993' (PMGI, PBPC); 1 spec. 'Australia: WA; Kimberley / 12 m alt.; Home Valley Station / 14°42´S 127°51´E; 15–18.iv.2009 / nr Pentecost river; S. Jakl lgt.' (PBPC); 1 spec. 'Australia: WA; Kimberley, Home / Valley St. 15°42.29´S 127°51.11´E / 12 m alt., 16–18.iv.2009, light / traps, leg. Vít Ryjáček' (PBPC); 1 spec. 'Australia, WA, 95–24 / Durack River, 87 km / w Pentecost R. / 11–12.viii.1995, M. Baehr' (MBMG); 1 spec. 'Australien, WA / Ord River, 105 km n / Hall´s Creek 15.xi. / 1984, M.+B. Baehr' (MBMG); 1 spec. 'Australien, WA / Ord River 105 km n. / Ivanhoe, 13.xi. /1984, M.+B. Baehr' (MBMG); 1 spec. 'Australia07, WA56, 56 km n. / Halls Creek, Little Panton R. / Great Northern Hwy. 339 m / 17.52.53S, 127.49.91E / 17–18.xi.2007, M. Baehr' (MBMG); 1 spec. 'Australia07, WA50, Parrys / Lagoon N. Res. Marlgu Billabong / 25 km se. Wyndham, 77 m / 15.32.98S, 128.15.59E / 17–18.xi.2007, M. Baehr' (MBMG); 2 spec. 'Australia: WA Kimberley, 154 m alt. / Al Questr Wld. Park, 19–20.iv. / 2009, 16°00´S 128°01´E / Zebedee Springs; S. Jakl lgt.' (PBPC, SJPC). **Queensland:** 1 spec. '12.40S 142.40E QLD / Batavia Downs Hmsd. / 17–23.vi.1992 / T. Weir, at light' (ANIC); 1 spec. '10.56S 142.23 E QLD / Burster Creek / 17.x.1992 / T. Weir, P. Zborowski / at light, open forest' (ANIC); 1 spec. '12.55S 142.52E, QLD / Middle Peak Creek / 23.v.1994 water sweep / P. Zborowski' (ANIC); 1 spec. '11.45S 142.35E / Heathlands, QLD / 15–26.i.1992 / T. A. Weir, I. D. Naumann / at light' (ANIC); 1 spec. 'N Queeensland / Gregory Dawns / 24.i.2000 / Sv. Bílý leg.' (PBPC); 1 spec. 'Australia, Qld 93–28 / Lakefield NP, Horseshoe / Lag., 25 km e. Old Laura / 30.v.1993, M. Baehr' (MBMG); 1 spec. 'Austral. n. Qld. / 8 km w. Ravenshoe / 27–28.xii.198 / M. Baehr' (MBMG); 1 spec. 'Australien, ö. Qld. / 15 km s. Marlborough, 21.i.1982, M. Baehr' (MBMG); 1 spec. 'Australien, n. Qld. / Mc Leod River / 18 km w. Mt. Marbine / 7.i.1982, M. Baehr' (MBMG); 1 spec. 'Bamaga, N. Q[LD] / xii.1983 / J. Sedlacek' (QMBA).

Diagnosis. A small species with a dark fuliginous pronotum, rusty-brown elytra with transverse fuliginous strip located mainly in the basal half; long ovate elytra with striae slightly weakened lateroapically, with numerous DSP in intervals 3, 5, 7 and two ASP.

Description. Habitus as in Fig. 8; length 2.60–3.20 mm (mean 2.97 mm, HT 3.05 mm, n = 32). Colour of head and pronotum dark fuliginous, without bronze lustre; elytra rusty-brown with transverse large fuliginous strip located mainly in basal half, its anterior margin connected along sutura with darker area around scutellum, its posterior margin connected along sutura with slightly darker apex; antennae, mouth-parts and legs red-brown.

Head. Anterior margin of clypeus with small, moderately protruding lateral lobes, between them distinctly emarginated; clypeofrontal area with sharp and long Y-forming carina and with sharp additional transverse carina at the level of middle of eyes, in middle interrupted by longitudinal part of Y-forming carina. Facial furrows moderately long, deep and broad, moderately divergent posteriorly just below transverse carina; distance between them rather slightly larger than length of eye. Vertex moderately vaulted, surface even and smooth; without microsculpture or distinct punctures near back margin of eyes. Eyes moderately large and convex. Antennae moniliform.

Pronotum. Strongly convex; moderately rounded between lateral setiferous punctures, not attenuated anteriorly, anterior margin slightly convex; 0.99–1.06 (mean 1.02, HT 1.02) times as wide as long, 1.37–1.43 (mean 1.40, HT 1.37) times as wide as head; widest at about midlength. Anterior angles blunt, posterior ones moderately rounded. Anterior trans-

verse impression indistinct; median line very slightly impressed in basal half; lateral channel vestigial, reflexed lateral margin just recognizable, extended slightly beyond middle of interval between lateral setiferous punctures.

Elytra. Long-ovate; very slightly and broadly concave in basal fourth; 1.74–1.87 (mean 1.81, HT 1.76) times as long as wide, 1.10–1.24 (mean 1.16, HT 1.18) times as wide as pronotum; humeri distinctly protruded, each elytron with distinct humeral tooth; elytral base slightly sloping; outline moderately broadened laterally, broadest in anterior third; suture not depressed at base. Base without basal border and tubercles; BSP moderately large, indistinctly connected with first stria. Striae 1–8 deep in basal half, slightly weakened latero-apically; stria 8 as deep as other striae; punctures deep and dense in basal part, finer but dense up to apex; lateral channel with distinct punctures in second third. Intervals convex in basal half, slightly flattened lateroapically. Three PHSP; 14–17 DSP in intervals 3, 5; 10–12 DSP in interval 7 and two ASP (in deep apical stria).

Protibia. Apical spine on protibia curved backwards, as long as slightly curved apical spur; distal marginal tooth large and moderately sharp, proximal one smaller, rather blunt.

Aedeagus. Shape in lateral view as in Fig. 15; 0.51 mm long in HT, lower margin of median lobe regularly, moderately rounded, apex broad, narrowed. Apical lamella in ventral view as in Fig. 19; broadly rounded, slightly asymmetric. Parameres unisetose.

Variability. Darker area on elytra varies from as dark as in HT to distinctly lighter, less contrast (Fig. 9); transverse strip on elytra may be narrower, in some PTs reduced to discal macula.

Differential diagnosis. *Setodyschirius pseudozonatus* sp. nov. can be distinguished from the most similar (sibling) species *S. zonatus* (Putzeys, 1868) by having a smaller body (2.60–3.20 mm, mean 2.97 mm in *S. pseudozonatus* sp. nov.; 3.15–4.00 mm, mean 3.54 mm in *S. zonatus*), colour of the head and pronotum (dark fuliginous in *S. pseudozonatus* sp. nov., rusty-red in S. *zonatus*), the more rounded outline of the pronotum, and by the shorter elytra (ratio 1.74–1,87, mean 1,80 in *S. pseudozonatus* sp. nov.; 1.88–1.95, mean 1,91 in *S. zonatus*) with less parallel outline.

Etymology. The species epithet is derived from the name of the sibling species.

Distribution. Australia: Northern Territory, Western Australia, Queensland; ?Indonesia (Sumbava Island).

W. Schawaller (SMSN) sent me one specimen of the genus *Setodyschirius* for identification, labelled '[hw] Sumbava / ~~Java~~ / [pr] I. M. Archipel // Sammlung / H. Hesse / SMNS 1995' (SMSN). This specimen belongs to *S. pseudozonatus* sp. nov. and it was either a mislabelled specimen or the first specimen of the genus found outside of Australia.

Setodyschirius storeyi sp. nov.

(Figs. 10, 16, 20)

Type locality. Australia, WA, Kununurra.

Type material. Holotype: ♂, **AUSTRALIA: Western Australia:** 'AUSTRALIA: n. WA / Kununurra / 22.xii.1991–6.i.1992 / R. I. Storey / QMT 123619' (QMBA). Paratypes (6 specimens): **AUSTRALIA: Western Australia:** 4 spec. with the same locality data as HT (DPIM, MBMG, PBPC). **Northern Territory:** 1 spec. '11.09S 132.09E / Black Point / Coburg Pen. / NT / 15–23.ii.1977 / T. A. Weir' (ANIC); 1 spec. '11.09 S 132.09 E / Black Point / Coburg Pen. N.T. / 24.i.1977 / E. D. Edwards' (ANIC).

Diagnosis. A medium-sized species with a rusty-red pronotum and rusty brown elytra with a transverse fuliginous strip located mainly in the apical half; subparallel elytra with striae disappearing lateroapically, with rather numerous DSP in intervals 3, 5, 7 and one ASP.
Description. Habitus as in Fig. 10; length 3.10–3.35 mm (HT 3.20 mm; mean 3.19 mm, n = 7). Colour of head and pronotum rusty red-brown, without metallic lustre; elytra rusty-brown with transverse large fuliginous strip located mainly in apical half, indistinctly infuscated around BSP and on apical inclination, antennae, mouth-parts and legs rusty-red.

Head. Anterior margin of clypeus with small, moderately protruding lateral lobes, between them distinctly emarginate; clypeofrontal area with sharp and long Y-forming carina and with sharp additional transverse carina at the level of middle of eyes, in middle interrupted by longitudinal part of Y-forming carina. Facial furrows moderately long, deep and broad, moderately divergent posteriorly just below transverse carina; distance between them distinctly larger than length of eye. Vertex moderately vaulted, surface even and smooth; without microsculpture or distinct punctures near back margin of eyes. Eyes relatively small and moderately convex. Antennae moniliform.

Pronotum. Subelongate, convex, very slightly rounded, almost parallel between lateral setiferous punctures, not attenuated anteriorly, 0.86–0.91 (mean 0.89; HT 0.88) times as wide as long, 1.24–1.29 times as wide as head; widest at about middle. Anterior angles rounded, posterior ones rounded. Anterior transverse impression very broad and superficial; median line very thin and fine, slightly more impressed in basal half; lateral channel and reflexed lateral margin slightly recognizable only before/around anterior setiferous puncture. Surface shiny, mirror-like.

Elytra. Subparallel; indistinctly concave in anterior fourth in lateral view; 1.99–2.12 (mean 2.07, HT 2.04) times as long as wide, 1.09–1.13 (mean 1.11, HT 1.13) times as wide as pronotum; humeri distinctly protruded, each elytron with very blunt humeral tooth, base very slightly sloping; outline indistinctly broadened laterally, broadest in anterior fourth, almost straight in anterior two thirds; apex regularly rounded; suture not depressed at base. Base with very fine, vestigial basal border and without tubercles; BSP moderately large, slightly connected with first stria; BSP moderately broad, distinctly connected with first stria. Stria 1 complete, striae 2–7 moderately deep in basal half, disappeared lateroapically: inner striae in apical fifth, outer in apical third; stria 8 missing, in one PT recognizable in its anterior third as single rough puncture; punctation moderately deep and dense in basal part, disappeared latero-apically; lateral channel with few fine punctures in middle third; interval 1 raised and convex, other intervals vaulted in basal half, flattened apically. 2–3 PHSP; 9–12 DSP in intervals 3, 5; 5–8 DSP in interval 7 and one ASP (in deep apical stria).

Protibia. Apical spine slightly curved backwards not inwards, as long as almost direct apical spur; distal marginal tooth moderately large, sharp, proximal one smaller, sharp.

Aedeagus. Shape in lateral view as in Fig. 16; 0.46 mm long in HT, lower margin of median lobe rather strongly rounded in basal half, apex narrow. Apical lamella in ventral view as in Fig. 20; broadly rounded, symmetric. Parameres unisetose.
Variability. Two specimens from NT are slightly broader (elytral length/width ratio 1.99–2.01, pronotal width/length 0.91 in specimens from NT; elytral length/width ratio 2.04–2.12, pro-

notal width/length 0.85–0.90 in specimens from WA including HT) and have a darker basal elytral spot and elytral apex; one of them has a second, extraordinary ASP (placed slightly antero-laterally out of apical stria).

Differential diagnosis. *Setodyschirius storeyi* sp. nov. can be distinguished from the most similar *S. zonatus* by the longer pronotum with a reflexed lateral margin that is less distinct and shorter; elytra distinctly narrower (length/width ratio 1.99–2.12 in *S. storeyi* sp. nov. and 1.88–1.95 in *S. zonatus*) with striae finer (especially lateroapically), by elytral stria 8 missing, and by only one ASP. It can be distinguished from *S. macleayi* by colour of the head and pronotum (*S. macleayi* has the head and pronotum dark fuliginous with a slight bronze lustre), body much narrower and by elytra with striae 2–7 longer and stria 8 missing, and finally from *S. pseudozonatus* sp. nov. by the head and pronotum being lighter, the body much narrower and by elytra with striae disappearing lateroapically, with only single ASP.

Etymology. Named in commemoration of late Ross Storey, collector of major part of type series, a specialist in Scarabaeidae, who passed away recently in 2008.

Distribution. Australia: Western Australia, Northern Territory.

Setodyschirius jabiru sp. nov.

(Fig. 11)

Type locality. Australia, NT, Arnhemland, 33 km E of Jabiru, Podocarp Canyon, rainforest.

Type material. Holotype: ♀, **AUSTRALIA: Northern Territory:** 'AUST[RALIA]: NT: Arnhemland / 33 km E Jabiru, Podocarp / Canyon, Rainforest / 15.xii.1993, uv light / S & J Peck, 93–128' (CNMC). Paratypes: **AUSTRALIA: Northern Territory**:1 ♀, with the same locality data as HT (PBPC). 1 spec. 'Australia N. T., / Howard Springs, 18.xi.1990, At Light / W. F. Chamberlain' (TAMU).

Diagnosis. A small species with a rusty ferruginous, finely punctate pronotum and slightly lighter elytra; elytra long ovate with striae slightly weakened lateroapically, with 3–5 DSP in anterior half of interval 1, numerous DSP in intervals 3, 5, 7 and two ASP.

Description. Habitus as in Fig. 11; HT 2.65 mm long, PTs 2.60 mm and 2.15 mm long. Colour of head and pronotum rusty-ferruginous; elytra, especially its apex, slightly lighter; antennae, mouth-parts and legs rusty-yellowish.

Head. Anterior margin of clypeus with strongly protruding, very narrow lateral lobes, between them slightly emarginate; clypeofrontal area with rather short and sharp Y-forming carina and with additional transverse carina at the level of middle of eyes, connected with rather sharp carinae along posterior parts of facial furrows. Facial furrows deep, broad and slightly divergent anteriorly, interrupted by posterior transverse carina; rather fine and moderately divergent in posterior third, distance between them larger than length of eye. Surface of vertex even, with fine and sparse micropunctures. Eyes moderately large, convex. Antennae moniliform.

Pronotum. Strongly convex, slightly attenuated posteriorly; in HT 1.05, in PTs 1.07 and 1.01 times as wide as long, in HT 1.33, in PTs 1.33 and 1.28 times as wide as head; widest in anterior third. Anterior angles blunt, very narrowly rounded, posterior ones very broadly rounded; outline regularly, distinctly convex. Anterior transverse impression not recognizable; median line very thin and fine, slightly more impressed in basal half; lateral channel narrow, superficial, reflexed lateral margin extended slightly beyond posterior setiferous puncture.

Surface with sparse and fine punctures on disc.

Elytra. Long ovate to subparallel, not concave in anterior fourth in lateral view; in HT 1.79, in PTs 1.77 and 1.86 times as long as wide, in HT 1.18, in PTs 1.17 and 1.14 times as wide as pronotum; humeri very distinctly protruded, each elytron with distinct humeral tooth; base very slightly sloping, outline slightly to moderately broadened, broadest distinctly before midlength; apex regularly rounded; suture not depressed at base. Base with fine basal border and without tubercles; BSP relatively small, not connected with first stria. Striae 1–7 moderately deep, slightly finer latero-apically; stria 8 missing in HT, in PTs recognizable in its anterior third as single fine puncture; punctation deep and dense, slightly finer lateroapically; lateral channel with few punctures in middle third; intervals moderately vaulted. Three PHSP; 3–5 DSP in anterior half of interval 1; 14–19 DSP in intervals 3, 5, 7 and two ASP (in deep apical stria).

Protibia. Apical spine long, curved backwards, as long as slightly curved apical spur; distal marginal teeth very large and moderately sharp, proximal one smaller, rather sharp.

Variability. Paratype from Howard Springs is distinctly smaller and slightly narrower.

Differential diagnosis. *Setodyschirius jabiru* sp. nov. is not similar to any other Australian species and represents a separate monospecific group within the genus *Setodyschirius*. The group can be defined and distinguished from all other *Setodyschirius* species by the punctate surface of the pronotum and by the presence of setiferous punctures also in elytral interval 1. Similar punctation of the upper surface of the pronotum is known in the species of the Afrotropical/Oriental genus *Cribrodyschirius* Bruneau de Miré, 1952, but the latter has roughly punctate proepisterna and 1–2 DSP in elytral interval 3 only.

Etymology. The species epithet is derived from the locality at which the species was found; noun in apposition.

Distribution. Australia: Northern Territory.

Setodyschirius monteithianus sp. nov.

(Figs. 12, 17, 21)

Type locality. Australia, Queensland, 11.41˚S 142.42˚E, 15 km ENE of Heathlands.

Type material. Holotype: ♀, **AUSTRALIA: Queensland:** 'QLD: 11.41S 142.42E / 15 km NE by E Heathlands / 8.xii.1992 W. Dressler / P. Zborowski, at light' (ANIC). Paratypes (8 specimens): **AUSTRALIA: Queensland:** 1 spec. with the same data as HT (PBPC); 2 spec. '11.45S 142.35E / Heathlands, QLD / 15–26.i.1992 / T. A. Weir, I. D. Naumann / at light' (ANIC, PBPC); 1 spec. '11.39S 142.27E QLD / Cockatoo Ck. Xing / 17 km NW Heatlands / 15–26.i.1992 / T. A. Weir, I. D. Naumann / at light' (ANIC); 1 spec. '11.41S 142.42E QLD / 14 km ENE Heathlands / 8.xii.1992, at light / rainforest / P. Zborowski & W. Dressler' (ANIC); 1 ♂ 'Lokerbie, Scrub, / Cape York, N. QLD. / 14–18.iv.1973 / G. B. Monteith' (QMBA). **Northern Territory:** 1 spec. '12.46S 132.39E / 12 km NNW of Mt. Cahill, N.T. / 20.v.1973, Matthews & Upton' (ANIC); 1 spec. 'Aust: NT: Arnhemland / 33 km E Jabiru, Podocarp / Canyon, Rainforest / 15.xii.1993, uv light / S & J Peck, 93–128' (CNMC).

Diagnosis. A medium-sized species with dark fuliginous pronotum and elytra with a bronze lustre, elytra slightly to distinctly lighter apically; ovate elytra with striae disappearing lateroapically, with 4–9 DSP in intervals 3, 5, 7 and one ASP.

Description. Habitus as in Fig. 12; length 3.15–3.55 mm (mean 3.35 mm, HT 3.50 mm, n = 9). Colour of head and pronotum dark fuliginous, surface with slight bronze lustre; elytra slightly (in HT and two PTs) to distinctly lighter in apical half, two PT immature; antennae, mouth-parts and legs rusty-red.

Head. Anterior margin of clypeus with protruding, narrow lateral lobes, between them regularly and slightly emarginate; clypeofrontal area with moderately sharp Y-forming carina and with rather blunt to vestigial additional transverse carina at the level of middle of eyes, in middle interrupted by longitudinal part of Y-forming carina. Facial furrows moderately deep, broad and parallel anteriorly, indistinctly interrupted by posterior carina; moderately divergent in posterior fourth; distance between them slightly larger than length of eye. Surface of vertex even, smooth, with very fine and sparse micropunctures. Eyes moderately large, strongly convex. Antennae moniliform.

Pronotum. Convex; outline moderately rounded and divergent in anterior half and slightly rounded between midlength and posterior setiferous puncture; 1.01–1.06 (mean 1.04, HT 1.05) times as wide as long, 1.32–1.39 (mean 1.36, HT 1.36) times as wide as head; widest slightly below middle. Anterior angles blunt, posterior ones moderately broadly rounded. Anterior transverse impression very broad and superficial; median line very slightly impressed in basal half; lateral channel slightly broadened anteriorly; reflexed lateral margin extended to about middle of interval between lateral setiferous punctures. Surface shiny, mirror-like.

Elytra. Ovate; not concave in anterior fourth in lateral view; 1.66–1.72 (mean 1.70, HT 1.68) times as long as wide, 1.10–1.17 (mean 1.14, HT 1.15) times as wide as pronotum; humeri moderately protruded, each elytron with oblique humeral tooth, elytral base slightly sloping; outline moderately broadened, broadest distinctly before middle; apex regularly rounded; suture not depressed at base. Base without or with vestigial basal border, without tubercles; BSP moderately broad, slightly to distinctly connected with first stria. Stria 1 deep, complete, striae 2–7 moderately deep in basal half, disappearing latero-apically: inner striae in apical fourth, outer ones in apical two fifths; stria 8 recognizable in its middle third as a row of 3–5 rough punctures; striae punctation moderately deep and dense in basal part, disappearing late-roapically; lateral channel with few very fine punctures in middle third; intervals moderately vaulted in basal half, flattened apically. Three PHSP; 7–9 DSP in intervals 3, 5; 4–6 DSP in interval 7 and one ASP (in deep and long apical stria).

Protibia. Apical spine slightly curved backwards not inwards, as long as almost direct apical spur; distal marginal tooth moderately large, sharp, proximal one smaller, sharp.

Aedeagus. Shape in lateral view as in Fig. 17; 0.60 mm long in PT (Lockerbie), lower margin of median lobe distinctly rounded , apex long and narrow. Apical lamella in ventral view as in Fig. 21; symmetric, broadly rounded, not narrowed. Parameres unisetose.

Variability. Striae punctures vary from moderately broad (intervals 5–6 basally as broad or slightly broader than punctures) to broad (intervals 5–6 basally narrower than punctures).

Differential diagnosis. *Setodyschirius monteithianus* sp. nov. can be distinguished from the most similar *S. macleayi* by having a smaller body (3.15–3.55 mm in *S. monteithianus* sp. nov., 3.80–4.25 mm in *S. macleayi*), different colouration (especially of elytra), by the elytra being shorter, more ovate (length/width ratio 1.65–1.72 in *S. monteithianus* sp. nov., 1.76–1.88 in *S. macleayi*) and not concave in lateral view in the anterior fourth (distinctly concave in *S. macleayi*).

Etymology. Dedicated to the discoverer of the first specimen of the new species, Geoff Monteith (QMBA, Brisbane, Australia).

Distribution. Australia: Queensland, Northen Territory.

Setodyschirius weiri sp. nov.

(Figs. 13, 18, 22)

Type locality. Australia, Northern Territory, Bessie Spring, 8 km ESE of Cape Crawford, 16.40° S, 135.51° E.

Type material. Holotype: ♂, **AUSTRALIA: Northern Territory:** 'N.T. Crawford/ Bessie Spring / 16.40S 135.51E / 8 km ESE of Cape // 26.x.1975 / M. S. Upton' (ANIC). Paratypes (7 specimens): **AUSTRALIA: Queensland:** 1 spec. '15.04S 145.07E / Mt. Webb Nat. Pk. / QLD, 28–30.ix. / 1980 T. Weir' (ANIC); 1 spec. 'Mt. Coolum, Q. / 26.33S 153.05E / 15.xii.1968, at light / Britton & Misko' (PBPC); 1 spec. 'Australia QLD 8.i.1997 / Daintree N.P. Cape Tribulation / Leg. L. Toledano, R. Olivieri' (MBMG); 2 spec. '[on label with beetle] 1530, N. Qu // N Queensland / Blackb´s Coll // D. macleayi Slo // SAMA Database / No. 25–32734–5; one of them with an additional label 'I. 6883 / Dyschirius / macleayi Sln // Queensland' (SAMA, PBPC). **New South Wales**: 1 spec. 'Kioloa NSW / 8.i.1985 / C. Reid / bare sand by / brackish pool' (ANIC). **West Australia:** 1 spec. 'Austl: W Austl., 3 / mi E Pago / Mission, 26.x.1976 // FMNH #76–5032, / at light, J. B. / Kethley // Dyschirius / sp. / det. D. Shpeley 1987' (FMNH).

Diagnosis. A large species with fuliginous pronotum and ferruginous elytra with a slightly darker, transverse subapical strip and indistinct macula around scutellum; long ovate elytra with striae disappearing lateroapically, with 4–5 DSP in intervals 3, 5 and one ASP.

Description. Habitus as in Fig. 13; length 3.75–4.50 mm (mean 3.98 mm, HT 4.05 mm, n = 8). Colour of head and pronotum fuliginous to dark fuliginous, surface with slight bronze lustre; anterior part of head lighter, elytra ferruginous with slightly darker, irregular and large transverse subapical strip, lighter apex and indistinct macula around scutellum, two PT lighter, immature; antennae, mouth-parts and legs rusty-red.

Head. Anterior margin of clypeus with protruding, narrow lateral lobes, between them straight; clypeofrontal area with very blunt Y-forming carina, its longitudinal part strongly broadened and flattened posteriorly, without additional transverse carina at the level of middle of eyes. Facial furrows moderately deep, broad and parallel anteriorly, moderately divergent in posterior fourth; distance between them slightly larger than length of eye. Surface of vertex even, smooth, with very fine and sparse micropunctures. Eyes large, strongly convex. Antennae slightly submoniliform.

Pronotum. Strongly convex; outline regularly, moderately convex, very slightly to moderately divergent anteriorly; 0.98–1.04 (mean 1.01, HT 0.98, n = 8) times as wide as long, 1.32–1.40 (mean 1.37, HT 1.37, n = 7) times as wide as head; widest slightly to distinctly below middle. Anterior angles blunt, posterior ones moderately broadly rounded. Anterior transverse impression very broad and superficial; median line very slightly impressed in basal half; lateral channel distinct, broadened anteriorly; reflexed lateral margin extended to about two thirds of interval between lateral setiferous punctures. Surface shiny, mirror-like.

Elytra. Long ovate; indistinctly concave in anterior fourth in lateral view; 1.76–1.84 (mean 1.78, HT 1.78, n = 7) times as long as wide, 1.17–1.24 (mean 1.20, HT 1.21, n = 7) times as wide as pronotum; humeri distinctly protruded, without humeral tooth, elytral base slightly sloping; outline slightly broadened, broadest distinctly before middle; apex regularly rounded; suture not depressed at base. Base with distinct basal border, each elytron with two vestigial tubercles connected with basal border, lying near suture; BSP moderately broad, slightly connected with first stria. Stria 1 complete, striae 2–7 moderately deep in basal half, disappearing latero-apically: inner striae in apical third, outer ones in apical half; stria 8 recognizable in second fourth as row of 3–5 rough punctures; punctation deep and dense in basal part, rather abruptly disappearing lateroapically; lateral channel with few very fine punctures in middle

third; interval 1 raised, other intervals moderately vaulted in basal half, flattened apically. Three PHSP; 4–5 DSP in intervals 3, 5; mostly 0 DSP (one DSP on left elytron in HT) in interval 7 and one ASP (in deep and long apical stria).

Protibia. Apical spine distinctly curved backwards not inwards, as long as almost direct apical spur; distal marginal tooth moderately large, sharp, proximal one smaller, sharp.

Aedeagus. Shape in lateral view as in Fig. 18; 0.78 mm long in HT, lower margin of median lobe regularly, moderately rounded, apex long, broad, broadly rounded. Apical lamella in ventral view as in Fig. 22; rounded, asymmetric, turned left. Parameres unisetose.

Variability. The specimen from Kioloa is distinctly larger, the specimen from Daintree smaller than other specimens (4.50 mm in the first specimen, 3.75 mm in the latter and 3.95–4.05 mm in the remaining ones). Punctures of the elytral striae vary from moderately large (intervals 5–6 in basal half are as broad as or slightly broader than the punctures) to large (intervals 5–6 in basal half are narrower than the punctures); in the specimen from Mt. Column the pronotal channel is slightly longer, almost reaching the posterior setiferous puncture.

Differential diagnosis. *Setodyschirius weiri* sp. nov. can be distinguished from all other known *Setodyschirius* species by elytra with DSP just in elytral intervals 3 and 5 (other specimens have DSP either only in interval 3 or minimally in intervals 3, 5 and 7). Additionally, *S. weiri* sp. nov. differs from the most similar *S. macleayi* by the head with a very blunt clypeofrontal Y-forming carina, pronotum with a longer, anteriorly more distinctly broadened, lateral channel, and elytra with two ASP (one in *S. macleayi*).

Etymology. Dedicated to Tom Weir (ANIC, Canberra, Australia), collector of several *Setodyschirius* species.

Distribution. Australia: Northern Territory, Queensland, New South Wales, Western Australia.

Comment. Specimen from FMNH is immature and slightly damaged (left eye missing, elytra are twisted so that the width of the head and elytra was not measured).

Setodyschirius kangaroo sp. nov.

(Fig. 14)

Type locality. Australia, South Australia, Kangaroo Island.

Type material. Holotype: ♀, **AUSTRALIA: South Australia:** '[pr] South Australia / Kangaroo Island / [hw] x.1924 // Dyschirius / not in Mus. / checked with desi. cf. / D. torrensensis // [pr] SAMA Database / No. 25–327038' (SAMA).

Diagnosis. A small species with a black pronotum and dark fuliginous elytra; long ovate elytra with striae disappearing at about elytral midlength, with numerous DSP in intervals 3, 5, 7 and one ASP.

Description. Habitus as in Fig. 14; length 2.80 mm. Colour of head and pronotum black, elytra dark fuliginous, apex slightly lighter, legs and mouth-parts rusty-brown, antennae fuliginous, two basal antennomeres lighter (right antennomeres 2–11 missing).

Head. Anterior margin of clypeus with moderately protruding, narrowly rounded lateral lobes, between them slightly emarginate; clypeofrontal area with moderately sharp, wide Y-forming carina and with additional sharp transverse carina at the level of middle of eyes, in middle connected with longitudinal part of Y-forming carina. Facial furrows deep, narrow

and parallel anteriorly, strongly divergent in posterior fourth, interrupted by posterior transverse carina; distance between them almost twice larger than length of eye. Vertex strongly vaulted, broad, surface even, smooth, with very fine and sparse micropunctures. Eyes small, moderately convex. Antennae submoniliform.

Pronotum. Strongly convex; outline regularly and strongly rounded, moderately attenuated anteriorly; 0.97 times as wide as long, 1.59 times as wide as head; widest in about posterior third. Anterior angles rounded, posterior ones broadly rounded. Anterior transverse impression indistinct, median line just recognizable in posterior half; reflexed lateral margin very slightly recognizable only around anterior setiferous puncture. Surface shiny, mirror–like.

Elytra. Long ovate, very deeply and narrowly concave in anterior fourth in lateral view; 1.73 times as long as wide, 1.24 times as wide as pronotum; humeri rather slightly protruded, each elytron with very distinct and sharp humeral tooth; elytral base strongly sloping; outline in basal half slightly broadened on sides, broadest before middle, much more strongly attenuated towards apex than towards humeri; suture not depressed at base. Base with vestigial basal border and blunt tubercles; BSP large, connected with strongly deepened first stria. Striae 1–7 very specific: in basal part recognizable as rows of deep and very rough punctures, then rather abruptly disappearing apically; stria 1 in anterior two fifths, striae 2–4 slightly below middle and striae 5–8 in apical half; striae punctures basally distinctly larger than width of intervals, stria 8 almost as deep as stria 7, disappeared basally; lateral channel with few deep punctures in middle third; intervals strongly vaulted in basal half; apical two fifths of elytra smooth, except rows of dense DSP. Three PHSP; 14–20 DSP in intervals 3, 5, 7 and one ASP (in deep apical stria).

Protibia. Apical spine slightly curved backwards not inwards, as long as almost direct apical spur distal marginal tooth large, sharp, proximal one smaller, sharp.

Differential diagnosis. *Setodyschirius kangaroo* sp. nov. can be distinguished from the most similar *S. wilsoni* by elytra longer ovate (length/width ratio 1.73 in *S. kangaroo* sp. nov., 1.56–1.68 in *S. wilsoni*), more deeply concave in the anterior fourth in lateral view, elytral apex without subapical yellowish macula, and by only one ASP. It can be distinguished from *D. stephensii* by having a larger body (2.80 mm in *S. kangaroo* sp. nov., 2.30–2.65 mm in *S. stephensii*), elytra much more deeply concave in anterior fourth in lateral view, with punctures of elytral striae coarser, and by numerous DSP in intervals 3, 5, 7 (14–20 in *S. kangaroo* sp. nov., 4–7 in *S. stephensii*).

Etymology. The species epithet is derived from the locality in which the species was found; it is to be treated as a noun in apposition.

Distribution. Australia: South Australia (Kangaroo Island).

Key to *Setodyschirius* species

1(4) Elytra with DSP only in interval 3.

2(3) Elytra uniformly black; one ASP; length 2.85–3.15 mm. ..... ***S. mastersii*** (MacLeay, 1866)

3(2) Each elytron with yellow subapical macula; two ASP; length 2.60 mm. ..... ***S. ovensensis*** (Blackburn, 1891)

4(1) Elytra with DSP minimally in intervals 3 and 5.
5(6) Elytra with DSP in intervals 1, 3, 5 and 7; pronotum finely punctate. .... ***S. jabiru* sp. nov.**
6(5) Elytra without DSP in intervals 1; pronotum without fine punctures.
7(8) Elytra without DSP in interval 7 (exceptionally single DSP on one elytron) and with distinct basal border; pronotal lateral channel distinctly broadened anteriorly in anterior fourth; length 3.75–4.50 mm. ..... ***S. weiri* sp. nov.**
8(7) Elytra with (minimally two) DSP in interval 7 and without or at most with a vestigial basal border; pronotal lateral channel mostly very fine, slightly to non broadened in anterior fourth.
9(20) Elytra with one ASP.
10(13) Body smaller, length 2.30–2.75 mm, monochromous black, elytral striae disappearing in apical half.
11(12) Body length 2.30–2.45 mm; elytra in lateral view very slightly concave in anterior fourth, 4–7 DSP in intervals 3, 5, 7. ..... ***S. stephensii*** (MacLeay, 1865)
12(11) Body length 2.80 mm; elytra in lateral view deeply concave in anterior fourth, 14–20 DSP in intervals 3, 5, 7. ..... ***S. kangaroo* sp. nov.**
13(10) Body larger, length over 3.10 mm, not monochromous black.
14(15) Body length 4.70–5.20 mm, mostly monochromous ferruginous, clypeal Y-forming carina bifurcate posteriorly. ..... ***S. torrensensis*** (Blackburn, 1890)
15(14) Body length 3.10–4.15 mm; clypeal Y-forming carina not bifurcate posteriorly
16(17) Pronotum rusty-red, elytra narrower (ratio 1.99–2.12), elytral striae strongly weakened but not totally disappearing apically; length 3.15–3.35 mm. ..... ***S. storeyi* sp. nov.**
17(16) Pronotum darker, fuliginous to black, elytra broader (ratio below 1.90); elytral striae disappearing apically.
18(19) Body length (3.60–)3.80–4.25 mm; elytra narrower (ratio 1.76–1.88), slightly concave in anterior fourth,with slightly lighter humeral spots. ... ***S. macleayi*** (Sloane, 1896)
19(18) Body length 3.10–3.55 mm; elytra distinctly broader (ratio 1.65–1.72), in lateral view not concave in anterior fourth, with slight green-bronze lustre, without distinctly lighter humeral spots. ..... ***S. monteithianus* sp. nov.**
20(9) Elytra with two ASP.
21(24) Pronotum dark fuliginous to black; elytra shorter; body smaller, length below 3.20 mm.
22(23) Elytra short ovate (ratio 1.57–1.66) with striae disappearing in apical half; length 2.60–3.05 mm. ..... ***S. wilsoni*** (Sloane, 1923)
23(22) Elytra long ovate (ratio 1.74–1.87) with striae not shortened; length 2.60–3.20 mm. ..... ***S. pseudozonatus* sp. nov.**
24(21) Pronotum rusty-red; elytra longer, subparallel (ratio 1.88–1.95); body mostly distinctly larger; length (3.15)–3.55–4.00 mm ..... ***S. zonatus*** (Putzeys, 1868)

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